Charting the Course:

Fisheries Division's Framework for Managing Aquatic Resources

DRAFT

2013-2017 Fisheries Division Strategic Plan Michigan Department of Natural Resources



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CHIEF'S LETTER

Dear Citizens,

The Michigan Department of Natural Resources, Fisheries Division, by way of its predecessors, the Michigan Fish Commission and the Department of Conservation, was created nearly 140 years ago to conserve, manage and protect the state's natural resources. These efforts have ensured that Michigan's unique natural resources are readily available for current and future generations to use and enjoy.



Fisheries Division works to protect, rehabilitate and enhance the state's fish populations, which provide the best overall freshwater fishing opportunities in the world. Work is carefully planned using a broad base of information from years of assessment, research and experience along with key input from our many constituents. This work is also constantly changing, and requires adapting to the changing aquatic world that influences the fish and wildlife populations it touches and affects.

We are proud to share with you our strategic plan – Charting the Course. Fisheries Division's Framework for Managing Aquatic Resources – produced to guide the division's actions through the year 2017. This plan covers everything that is asked of a resource-managing entity. It details the expectations and actions directly addressing the issues affecting and information needed for the management of our fish and aquatic communities, habitat, anglers and the division itself. We are excited by what this plan offers and how that will affect the future of fishing in Michigan.

A thank you is due to the many interested individuals and organizations that assisted in the development of this plan, both internally and externally. We feel it is a direct reflection of the interest and investment in Michigan's fisheries and illustrates the large number of citizens who care about our resources, now and far into the future.

Sincerely,

Jim Dexter

Chief, DNR Fisheries Division

DIRECTOR'S LETTER

Dear Citizens,

Michigan is on the move toward reinvention and natural resources will play a critical role in driving us forward. The state's future is closely tied to the health, sustainability and accessibility of these unparalleled resources. Michigan's world-class fisheries – in the Great Lakes or inland waters – remain a vital part of our recreation and economy.



The Department of Natural Resources' Fisheries Division has created a five-year strategic plan that will guide decisions and actions that affect the health of Michigan's aquatic resources, and touch the interests of anglers and other groups invested in fisheries. The goals and objectives laid out in this plan are a roadmap to meeting the division's mission and complement the DNR's overall strategic direction.

The plan provides a benchmark against which we can easily determine those actions that:

- Make sense scientifically and economically;
- Ensure rich outdoor recreation and tourism opportunities;
- Protect and enhance fish and aquatic resources for the long term; and
- Best represent the needs and interests of all stakeholders.

I am proud of the Fisheries Division's commitment, throughout the creation of the plan, to an open, inclusive and transparent process. Constituent needs, ideas and desires have been well represented around the table from start to finish and are reflected in the final product. Many organizations, large and small, have had a hand in shaping this plan and will be full partners in implementing it.

Thank you for your commitment to safeguarding Michigan's fisheries, now and for the future.

Sincerely,

Keith Creagh, Director Department of Natural Resources

TAKING STOCK OF MICHIGAN'S WORLD-CLASS FISHERIES

Michigan is truly a water wonderland with more than 11,000 lakes, 36,000 miles of rivers and streams, and 43 percent of the Great Lakes waters within its borders. In total, this represents more than 20 percent of the world's available fresh water.

The Michigan Department of Natural Resources, Fisheries Division is responsible for managing more fresh water than any other state, and these waters contain a variety of aquatic life, including 153 different species of fish. Unlike any other place in the U.S., if you are anywhere in Michigan, you're never more than seven miles away from fishable water. These extensive public trust resources, in proximity to the large population base in Michigan and the Midwest, provide unmatched fishing opportunities and require state-of-the-art, scientifically-guided fisheries management to ensure their continued excellence.

Recreational fisheries are a huge economic engine for the state and provide the largest and highest-value use of Michigan's aquatic resources. As documented in a preliminary U.S. Fish and Wildlife study, approximately 1.4 million Michigan residents and 347,000 nonresidents fished in state waters. These anglers fished more than 28.2 million days, generating a conservative direct economic net value of \$2.4 billion dollars to the state.

In a separate 2006 study by the American Sportfishing Association, the overall annual value of sportfishing to Michigan's economy was estimated even higher at \$3.7 billion, with \$2.1 billion from retail sales, \$1.1 billion in wages and salaries, \$477 million in tax revenues, and the rest from various smaller sources. In addition, more than 27,000 jobs were attributable to Michigan's sportfishing industry. In this study, Michigan ranked fifth nationally with respect to angler expenditures following Florida, Texas, Minnesota and California.

Michigan is fortunate to have a thriving commercial fishery in Great Lakes waters in addition to robust sport fisheries. In 2011, commercial fisheries produced approximately 9.2 million pounds of fish valued at \$10.6 million. Almost two thirds of the landed value is harvested by tribal fishers; the remainder is harvested by state licensed fishers. Wholesaling, processing and retailing produced an additional estimated \$10 million annually in economic benefit. The commercial fisheries provide employment for state-licensed and tribal fishers, as well as wholesalers, associated restaurants and other businesses.

Michigan's fisheries rely on the management actions taken by Fisheries Division, whose \$27.9 million dollar budget for 2013 is funded by a relatively small direct user group. Nearly all funds come from license sales and federal match. At this time, tax dollars from the state's General Funds are not used to support aquatic habitat protection, rehabilitation or management, even though all the citizens of Michigan benefit from these activities.

Michigan's world-class fisheries and aquatic resources are fragile and subject to threats from invasive species as well as increasing development pressures. Intensive protection and management efforts go well beyond fishing regulations and habitat protection.

Without these efforts, the state's fisheries would quickly decline, just as many valuable fisheries resources have declined elsewhere worldwide. In fact, it was the rapid degradation of Michigan's aquatic resources in the early 1870s that led to the establishment of the Michigan Fish Commission in 1873. As a direct descendent of that commission, Fisheries Division is now the second oldest administrative agency in state government with a strong reputation both nationally and with our public. With the vision expressed in this strategic plan, Fisheries Division has the privilege of continuing to meet its long-standing responsibilities to protect, manage and enhance the state's aquatic public trust resources for the benefit of all Michigan citizens, current and future.

PREPARATION & ORIENTATION

Why we developed the strategic plan:

Organizations perform best when they choose an explicit course of action and concentrate attention and effort on pursuing that course. A strategic plan establishes pathways to achieve high level goals and objectives that will lead to greater success in the future. This plan provides the main focus of Fisheries Division's efforts, but does not detail all the work that must be done to manage Michigan's magnificent aquatic resources. This strategy will help make the division more adaptable to emerging aquatic issues, increase operational efficiency, and improve the way the division conducts business.

How we developed the strategic plan:

We used an open and transparent process that engaged the public, division staff, and other departments in the strategic planning effort. Through online surveys, 10,280 public participants and 108 division staff identified the important issues and challenges the division faces, prioritized management activities that have the greatest impact on the fisheries, and rated the division's performance on various management activities including collaborations with partners. To provide additional planning detail, phone interviews were conducted with leaders of 20 various conservation organizations to assess what the division is doing well and what is needed to improve. Fisheries Division's strategic planning team worked with a facilitator to use this information to set priorities and to develop our mission, vision, goals, objectives and strategies to be implemented for future aquatic resources management.

Because so many people and organizations were involved with development of this plan, the document and the subsequent implementation is a reflection of their values, passions and hard work. The plan also aligns directly with the DNR's mission and goals.

DNR's Mission and Goals

Mission: The Michigan Department of Natural Resources is committed to the conservation, protection, management, use, and enjoyment of the state's natural and Goals:

• Enable strong natural resources based economic

- Protect natural and cultural resources.
- Ensure sustainable extreation use and enjoyment.
- Improve and hild relationships and partnerships.
- Foster effective business practices and good government.

GUIDING COMPASS POINTS

Fisheries Division Mission

To protect and enhance Michigan's aquatic life and habitats for the benefit of current and future generations.

Fisheries Division Vision

To provide world-class freshwater fishing opportunities, supported by healthy aquatic environments, which enhance the quality of life in Michigan.

Fisheries Division Values

The following six values guide the work of the Michigan Department of Natural Resources, Fisheries Division:

- Integrity
- Professionalism
- Leadership
- Collaboration
- Innovation
- Transparency

Tomorrow's Forecast

Forecasting the future is something nearly everyone wants to do, though in reality our success is often quite limited. Despite the inherent difficulties and uncertainties it is Fisheries Division's duty and responsibility, as stewards of Michigan's abundant aquatic public trust resources, to look forward and plan for the future as best we can.

English author and actor Arthur Wing Pinero wrote "...the future is only the past again, entered through another gate." His words apply to this strategic plan, which is built on several previous iterations of strategic planning along with our long history of protecting and conserving Michigan's unparalleled aquatic resources. This foundation is further strengthened by our best understanding and assimilation of Fisheries Division's mandates, obligations and principles, past and present, along with our best projections of the future.

Besides the specific goals, objectives and strategies detailed in this plan, Fisheries Division recognizes the need for increased efforts in the short-term focused on: holistic watershed assessment, management, protection, and mitigation; dam removal protocols and considerations; infrastructure maintenance, including the Great Lakes vessel fleet; potential expansion of private aquaculture; growth of animal-rights activism; the push for greater government efficiency and accountability; and the need for an expansion of education, information sharing and urban initiatives. In the long term, fisheries resources will be affected by societal pressures linked to population trends and landscape use. Even more broadly, watersheds and entire aquatic ecosystems will be influenced by climate change, global economies, public values and overarching political tides and directives.

The next five years and beyond will undoubtedly bring many new and difficult challenges to Fisheries Division. Examples include the possibility of unpredictable invasions of exotic species or outbreaks of diseases, increasingly complex demands by stakeholders, and ever-evolving agency knowledge, philosophies and organizational structure. Looming over everything is the decadelong declining trend in the division's operational budget and the continued uncertainty about future funding levels that severely limit what we can undertake and accomplish.

Although our staff remains optimistic and wholly committed to our mission, certain potential problem areas are known or at least anticipated in the years ahead. Issues related to these areas will have complex and interconnected social, legal, economic, biological and environmental consequences, some negative and some positive.

Examples of key social considerations include evolving societal attitudes toward resource ethics and stewardship, demographics of citizens in general and outdoor recreationalists in particular,

and overall changes in angler recruitment, retention and preferences. Native American fishing rights and variable roles of public versus private sector demands for water use and diversion will have social, legal and economic implications for our aquatic resources. Degraded aquatic habitats, pollutants and chemical contaminants in fish are illustrations of environmental/biological concerns.

Organizationally, Fisheries Division must be able to evolve and adopt new science and management philosophies as well as advancing technical capabilities. We will increase partnership collaborations within an ecosystem-based framework, continuing to recognize multiple uses of resources and working to eliminate or reduce habitat constraints. Fisheries Division staff will be required to work across disciplines and with diverse groups of people, remaining strongly grounded in science while embracing social values and interests on both local and regional levels to increase opportunities for sustainable recreation. We must become much better at documenting and communicating the tremendous, deep-rooted, ecologic and economic value of Michigan's fisheries and aquatic resources.

Specifically in terms of economics, the return on investment for maintaining and enhancing healthy aquatic resources is very large, going far beyond explicit benefits derived from exploitation and consumption. Michigan's water resources embody the largest component of our state's "green infrastructure," immeasurably adding to citizens' quality of life in both direct and indirect ways. Correspondingly, Fisheries Division contributes a great deal in helping to make Michigan a highly desirable, healthy and vibrant place to work, live and raise families. These are important factors in recruiting and retaining the best and brightest workers, businesspersons and scholars to the state, while also attracting tourists, spurring economic growth, building communities, and leveraging economic prosperity. Recognition that "place" is the most valued commodity for job seekers worldwide, it is clearly in Michigan's economic and social self-interest to protect and promote the natural resources that constitute our most valuable assets to define our "place."

As we move into the future, it is anticipated the goals and objectives listed in this strategic plan will remain relatively unchanged. The strategies, on the other hand, will be flexible and replaceable. Changes in strategies may result from emerging issues or changes in circumstances caused by unforeseen developments, or simply due to work being accomplished. The particular strategies outlined in this plan were deemed collectively as those of highest priority. However, significant thought and effort has already gone into formulation of additional layers of strategies for each objective. These additional strategies will be incorporated and applied as the execution of the strategic plan progresses and evolves in the years ahead.

NAVIGATION

Definitions of Goals, Objectives and Strategies

The five goals identified on the pages that follow have been developed to focus the work of Fisheries Division. For each, various objectives and strategies are detailed that will move us toward these goals by 2017. All of the goals, objectives and strategies provided in this plan are critical to meeting Fisheries Division's mission and are in no particular order of priority.

Goals: Representations of broad, high level themes that are consistent with Fisheries Division's mission, vision and values.

Objectives: Key accomplishments necessary to achieve goals.

Strategies: Approaches designed to meet objectives.

Time-specific, detailed action plans will be developed for each strategy to assist Fisheries Division in accomplishing this Strategic Plan.

GOAL ONE:

Healthy Aquatic Ecosystems and Sustainable Fish Populations

Objective 1: Enhance aquatic invasive species control efforts.

Strategy 1: Prevent introductions of new aquatic species.

Strategy 2: Control the spread of existing aquatic invasive species.

Strategy 3: Monitor existing aquatic invasive species populations.

Strategy 4: Develop and disseminate education and outreach materials on aquatic invasive species.

Objective 2: Conserve and manage aquatic species and their habitats.

Strategy 1: Protect and enhance natural reproduction of native and desirable naturalized aquatic species.

Strategy 2: Stock fish as appropriate for balanced aquatic communities.

Strategy 3: Develop and adhere to guidance documents for management of aquatic species and habitat.

Strategy 4: Protect and enhance nongame and rare species.

Strategy 5: Manage aquatic resources for use by current and future generations.

Strategy 6: Participate in and influence decisions on habitat use through collaboration and permit reviews.

GOAL TWO:

Diverse Fishing Opportunities

Objective 1: Increase public awareness of Michigan's diverse fishing opportunities.

Strategy 1: Promote diverse fishing opportunities statewide by providing targeted information and updates to specific regions, demographics, interest groups and the media.

Strategy 2: Work with local tourism and economic development organizations to demonstrate and market the connections between Michigan's diverse fishing opportunities and quality of life, both economic and noneconomic.

Strategy 3: Instill awareness and appreciation of Michigan's fish, fishing heritage and fishing opportunities into the culture, education and consciousness of all Michigan citizens.

Objective 2: Create or enhance fishing opportunities.

Strategy 1: Identify and catalog areas where fishing access is needed, prioritize locations, and work with partners to address these needs.

Strategy 2: Use fish stocking as a tool to create new or enhance existing fishing opportunities.

Strategy 3: Implement fishing regulations expressly designed to create special or unique fishing opportunities.

Objective 3: Increase participation and interest in fishing among all demographic groups.

Strategy 1: Identify what impedes people from fishing or from buying fishing licenses.

Strategy 2: Investigate ways to increase fishing license sales through implementation of alternative license sale structures and incentive purchase programs that instill sustained loyalty and interest.

Strategy 3: Increase education and outreach through programs and partners, both existing and new.

GOAL THREE:

Strategic Resource Partnerships

Objective 1: Achieve fisheries management goals through partnerships.

Strategy 1: Increase the proportion of Michigan's annual fish production that is reared through cooperative arrangements and methods (e.g., net pens, walleye ponds, streamside sturgeon facilities).

Strategy 2: Assume leadership roles and fully participate in fisheries management and regulatory processes involving inter-jurisdictional resources (e.g., Great Lakes, interstate, U.S./Canadian, tribal).

Strategy 3: Work toward a program whereby most habitat enhancement projects are achieved through partnership collaborations.

Strategy 4: Provide constituents with guidance on resource issues and contribute to the development of decision support tools when requested.

Strategy 5: Develop and maintain a list of partners along with their specialized skills and equipment.

Objective 2: Promote aquatic resource stewardship and watershed management.

Strategy 1: Support, enhance and foster the growth of existing programs (e.g., Salmon in the Classroom) to assist in teaching Michigan's youth about stewardship principles and aquatic resources.

Strategy 2: Stimulate an increase in the annual number of people visiting Interpretive Centers at state fish hatcheries.

Strategy 3: Partner with local chambers of commerce or other economic development groups to promote aquatic resource stewardship and to develop region-specific quality-of-life messages, disseminated through multimedia outlets.

Strategy 4: Develop web-based tools and information to help individuals or groups practice good shoreline and streamside resource stewardship.

Strategy 5: Facilitate watershed management by developing collaborative partnerships with organized watershed groups.

Objective 3: Increase angler recruitment and retention.

Strategy 1: Partner with angler groups and sport retailers, encouraging them to take a lead role in efforts to increase angler recruitment and retention.



GOAL FOUR:

Strategically Focused Assessment and Decision Support Tools

Objective 1: Conduct comprehensive assessments of fish and other aquatic life, habitat and aquatic resource users.

Strategy 1: Refine a fisheries assessment strategy that continues to develop the status and trends program and accounts for specific management needs for such things as large-lake surveys, walleye population estimates, and a statewide fish pathogen assessment.

Strategy 2: Develop a standardized program to annually assess Great Lakes nearshore and offshore fish communities.

Strategy 3: Develop a strategy to assess habitat in inland and Great Lakes (nearshore and offshore) waters using remote sensing methods where practical.

Strategy 4: Develop and implement surveys to track the public's opinions, attitudes and participation related to angling and aquatic resources.

Objective 2: Develop new and improve existing decision support tools to optimize Michigan's fisheries and aquatic resources.

Strategy 1: Develop GIS-based tools to enhance landscape/waterscape-level management decisions with regard to such things as habitat protection and rehabilitation, river assessments, fish passage barriers and climate change.

Strategy 2: Develop, refine and implement stock assessment models and tools for intensively managed species.

Strategy 3: Assist other state and federal agencies to refine water withdrawal assessments and tools.

Objective 3: Evaluate fisheries management actions.

Strategy 1: Annually conduct evaluations of key Fisheries Division actions.

Strategy 2: Determine levels of natural reproduction and stocking success for Great Lakes salmonids.

Strategy 3: Conduct peer reviews of the fish stocking program to evaluate cost effectiveness of each stocking location and species and to determine associated effects on local and state economies.

Strategy 4: Conduct peer reviews of habitat improvement projects to evaluate cost-effectiveness of each program component.

GOAL FIVE:

Efficient Division Operations

Objective 1: Encourage professional development for all employees within Fisheries Division.

Strategy 1: Provide training opportunities that are reflected in performance evaluations.

Strategy 2: Encourage involvement in professional organizations that are reflected in performance evaluations.

Strategy 3: Facilitate access to relevant information via trade and professional publications, technical assistance documents, and other outlets.

Objective 2: Align staff and resources to meet the goals of Fisheries Division.

Strategy 1: Develop a new three- to five-year division staffing plan.

Strategy 2: Align and coordinate staff resources to maximize effectiveness across basin, unit and section lines.

Strategy 3: Seek and incorporate new and emerging technologies and techniques.

Strategy 4: Enhance and maintain equipment and facility plans.

Strategy 5: Review work plan activities on an annual basis to document accomplishments and identify areas in need of improvement.

Objective 3: Streamline Fisheries Division programs and decision-making processes.

Strategy 1: Conduct periodic reviews of all Fisheries Division programs.

Strategy 2: Continue to support decision-making authority at the lowest appropriate level.

Objective 4: Recruit and retain talented employees within Fisheries Division.

Strategy 1: Boost and monitor employee morale.

Strategy 2: Create and maintain desirable work environments.

Strategy 3: Implement a continual employee recognition program.

APPRECIATION & RECOGNITION

Fisheries Division is deeply grateful to the public, conservation organizations and division staff for sharing their time, thoughts and vision to aid in the formulation of this plan. The following organizations were invited to offer their insights on how Fisheries Division is performing and what challenges we need to be prepared for:

- Alger County Fish and Game Alliance
- Anglers at large
- Anglers of the Au Sable
- Bays de Noc Great Lakes Sport Fisherman
- Bow-fishing Association of Michigan
- Chippewa-Ottawa Resource Authority
- Conservation Coalition
- Conservation Resource Alliance
- Escanaba River Association
- Fly Fishing Federation
- Great Lakes Council of the of the Federation of Fly Fishers
- Hammond Bay Area Anglers Association
- Huron Pines
- Lake Erie Citizen Advisory Committee
- Marquette Watershed Council
- Michigan Aquaculture Association
- Michigan Charter Boat Association
- Michigan Darkhouse Anglers Association
- Michigan Fish Producers
- Michigan Muskie Alliance
- Michigan River Guides Association
- Michigan Steelhead & Salmon Fisherman's Association
- Michigan Trout Unlimited
- Michigan United Conservation Clubs,
- Resource Stewards
- Sturgeon For Tomorrow
- Upper Peninsula Sportsmen's Alliance
- West Michigan Walleye Association
- Wildlife Unlimited of Iron County

A FUNDING REALITY CHECK

Like Great Lakes water levels, revenue goes up and down or can sometimes be flat. Forecasts based on a number of "What If..." funding situations were made in this section of the document. Currently, the Fisheries Division annual budget comes from the sale of fishing licenses (58%), from federal excise tax (Wildlife and Sport Fish Restoration Act) on fishing and boating equipment and motorboat fuel (38%), and from other sources (4%) such as litigation settlement and private funds. The division also receives limited one-time funding through competitive grants and capital outlay funding. These funds are used to efficiently manage Michigan's vast aquatic resources. In fact, each full-time Fisheries Division field employee currently manages an average of 510,000 surface acres – more by far than employees from any other state in the country.

Regardless of whether the water level is up or down, future funding will affect the ability of Fisheries Division to fulfill our statutory, Public Trust and consent decree-mandated obligations. It will change our ability to invest in staff and protect the state's infrastructure (i.e., facilities, vessels and equipment). Investments in fisheries management and improved fishing opportunities must be made to ensure the governor's priorities for reinventing Michigan are met. These investments will shape our existing high-profile fisheries for muskellunge, walleyes, trout, salmon, northern pike, largemouth and smallmouth bass, sunfish and lake sturgeon, and our ability to address customer desires for increased fishing opportunities for these and other key fish species. Future budgets will influence our capacity to attract additional anglers to our waters including young anglers and those from afar while retaining the loyalty of our existing angler base. Our ability to protect and rehabilitate our critical fisheries habitat and reduce the likelihood of damage from events such as dam failure is highly dependent on having sufficient financial resources. Our fiscal health will influence Michigan's quality of life reputation and its desirability as a destination. Finally, our budgets will affect our ability to meet stakeholder demand and satisfaction, ensure safety of citizens and employees, and continue to strengthen resiliency in Great Lakes and inland fisheries communities and ecosystems.

Governor Snyder's "Reinventing Michigan" Priorities related to Fisheries Division mission:

• Create more and better jobs.
• Keep our youth – our future here.
• Enhance our national and externational image.
• Protect our environment.

- Protect our environment.
- Winning in Mining in through relentless positive action.

Michigan Department of Natural Resources Scorecard Metrics:

- Increase overnight leisure travel for outdoor sports activities.
- Increase percentage of registered vehicle owners parchasing a Recreation Passport.
- Increase recruitment of new anglers.
- Increase percentage of returning anglers.
- Increase percentage of adult population reporting participation in fee and non-fee based outdoor recreation activities.
- Increase private and federal fund leveraging to help perform natural resource conservation and his oric preservation projects.
- Prevent and mitigate confirmed cases of silver and bighead carp in Michigan's waterways.
- Increase miles of free-flowing river/stream restored through dam removals.

Although Fisheries Division is responsible for protecting and managing all aquatic resources for the benefit of current and future generations, this service is completely funded by anglers and boaters. With flat license fees and flat or declining license and angling/boating equipment sales, Fisheries Division's effective budget continues to decline and requires annual adjustments in our work plans to compensate for inflationary costs.

What if...

...no additional state funding is provided and angler and boating funding continues to decrease or stay flat?

Fisheries Division would continue to downsize and discontinue existing programs as described in the following goal areas:

Healthy Aquatic Ecosystems and Sustainable Fish Populations

- Reduce our ability to conduct and assist partners with habitat improvement projects or fish management activities.
- Terminate the development of species-specific and Great Lakes management plans.
- Terminate management of nongame species.
- Decrease investigations of fish kill events.
- Risk increased mortalities in hatchery production.
- Necessitate closing one or more state fish hatcheries.

- Reduce or terminate production of walleye, northern pike, muskellunge, and brown trout.
- Discontinue marking stocked fish.
- Reduce reviews of and increase potential for slow response to permits, increasing the potential for habitat destruction or manipulation.
- Terminate enforcement of Natural Rivers Program zoning.
- Decrease assistance with the removal of damaging, uneconomical, and unsafe dams.

Diverse Fishing Opportunities

• Reduce ability to create new fishing opportunities and access.

Strategic Resource Partnerships

- •Reduce or terminate marketing, outreach, aquatic education and angler recruitment programs.
- Reduce information provided and the ability of Fisheries Division to connect the public to fishing-related information.

Strategically-Focused Assessment and Decision-Support Tools

- Reduce or terminate management assessment and experimentation on inland lakes, streams and the Great Lakes.
- Continue the reduction in the angler assessment program.
- Reduce the number of fish health assessments and treatments.

Efficient Division Operations

• Increase the risk of losing highly-skilled and trained staff to other federal and state agencies.

Sometimes a small or large wave of funds might become available. These funds typically come from the state's General Fund or may come from the Game and Fish Fund (angler license sales). Funds like these are best used for large projects if the duration of funding is short, or they could be used for operational activities if the duration is long.

What if...

...Fisheries Division receives other funds outside of the Game and Fish Fund such as operating revenue from the state's General Fund?

We could use the funding for one-time infrastructure upgrades and projects to:

- Increase steelhead production through the installation of new wells and other support facilities at the Thompson State Fish Hatchery and by upgrading facilities at Wolf Lake Fish State Hatchery.
- Develop coolwater production facilities at Thompson and Wolf Lake state fish hatcheries to increase our efficiency and capacity to raise muskellunge, walleyes, lake sturgeon and northern pike.
- Construct a new research vessel for Lake Huron, which is needed to support decision processes for managing fisheries resources.
- Upgrade field facilities to provide more modern and efficient lab, storage, shop and office space.
- Upgrade all Fisheries Division facilities to improve heating and cooling efficiency, saving the state significant operating expenses.

We would request annual funding to:

- Address critical maintenance at hatcheries, weirs, fish ladders and large vessels, critical to support the multibillion dollar sport and commercial fisheries.
- Expand the Dam Management Grant Program to assist communities and other dam owners with dam removal or repair.
- Reinstate the Inland Fisheries Grant program.

We would use any other stable funding from state general funds or other sources to ensure our programs can continue to be engines for both regional and local economies by enabling Fisheries Division to accomplish additional aspects of our mission and goals, including:

Healthy Aquatic Ecosystems and Sustainable Fish Populations

- Assign additional or new staff to conduct work with partners to inventory, monitor and manage inland lakes, streams and the Great Lakes; write timely lake and stream survey reports; complete Great Lakes and coldwater species management plans; increase our capacity for management of aquatic invasive species; maintain equipment and facilities; process survey data; and expand angler assessment programs for inland lakes and streams.
- Implement actions in the lake sturgeon rehabilitation plan as well as the muskellunge and northern pike management plans.

- Assign additional or new staff and equipment to conduct and work with partners on habitat improvement projects and speed the review of permits.
- Appropriately staff the Natural Rivers Program to ensure habitat protection on the state's highest-quality stream corridors.
- Assign additional or new staff to ensure fish health; maintain hatchery facilities; maintain the fish distribution fleet; and increase production of coolwater fish species as needed.
- Enhance biosecurity and fish health through technology and hatchery facility improvements.

Diverse Fishing Opportunities

• Seek new access to fisheries in urban areas.

Strategic Resource Partnerships

- Ensure inventory data is well-managed and readily available for interagency collaborations and to the public through online databases.
- Assign additional or new staff for additional communication, marketing and economic outreach and aquatic education; develop new and expand existing angler recruitment programs; increase our ability to measure and show economic value of healthy aquatic habitats and fisheries.
- Connect the public to fishing-related information through mobile-friendly websites and applications.

Strategically-Focused Assessment and Decision-Support Tools

- Assign additional or new biologists to increase our ability to answer management questions and develop the most appropriate regulations regarding inland lakes and streams and the Great Lakes; expand our ability to evaluate and maintain inventory data; and increase our capacity to participate on technical committees and collaborate with other agencies and universities.
- Assist other state and federal agencies to enhance water withdrawal decision tools and science to better understand withdrawal impacts.
- Increase capacity for laboratory and diagnostic services to ensure healthy fish products.

Efficient Division Operations

• Restore and increase employee training opportunities.

